

CLAIMS

1. A device for injecting a gas into a liquid,  
5 comprising an auto-suction turbine (5) for producing a  
gas-liquid dispersion, an axial flow rotor (4) for  
collecting said dispersion, and means for sending the  
gas-liquid dispersion to said axial flow rotor (4),  
characterized in that said means comprise deflecting  
10 means (8, 8', 8'', 8''') incorporated in the auto-suction  
turbine (5).

2. The device as claimed in claim 1, characterized  
in that said deflecting means (8, 8', 8'', 8''') consist  
15 of an upper member, called deflecting member, of the  
auto-suction turbine (5), having a larger diameter than  
that of a lower member (9) of said turbine and a  
profile suitable for deflecting said dispersion toward  
the axial flow rotor (4).

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3. The device as claimed in claim 2, characterized  
in that said deflecting member (8) has a conical  
profile.

25 4. The device as claimed in claim 3, characterized  
in that said conical profile makes an angle of between  
30° and 40° with the horizontal plane.

5. The device as claimed in claim 2, characterized  
30 in that said deflecting member (8', 8'') comprises an  
annular flap (8'b, 8''b).

6. The device as claimed in claim 5, characterized  
in that said annular flap (8'b) has a frustoconical  
35 profile.

7. The device as claimed in claim 5, characterized  
in that said annular flap (8''b) has a rounded profile.

8. The device as claimed in claim 2, characterized in that said deflecting member (8''') is a member with a convex profile.

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9. The device as claimed in claim 8, characterized in that said convex profile is an elliptical profile.

10. The device as claimed in any one of claims 1 to 9, characterized in that the means for sending the gas-liquid dispersion to said axial flow rotor (4) further comprise substantially vertical counterblades (19), arranged radially to the auto-suction turbine (5) and to the axial flow rotor (4).

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11. The device as claimed in claim 10, characterized in that the counterblades (19) have upper notches (21a, 21'a) designed to enable the deflecting member (8, 8', 8'', 8''') of the auto-suction turbine (5) to penetrate therein.

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12. The device as claimed in either of claims 10 and 11, characterized in that the counterblades (19) have lower notches (21b) designed to enable the axial flow rotor (4) to penetrate therein.

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